

Title (en)

An adaptive system for the attenuation of an intentional disturbance applied to a phased array type radar with mechanical scanning.

Title (de)

Adaptives Antennensystem zur Dämpfung einer bestimmten Störung welche auf eine Antenne mit phasengesteuerten Elementen trifft für ein mechanisch abtastendes Radargerät.

Title (fr)

Système adaptatif d'antenne pour atténuer des perturbations particulières appliquées à un radar à éléments à phases contrôlées avec balayage mécanique.

Publication

EP 0098339 A1 19840118 (EN)

Application

EP 82830170 A 19820615

Priority

EP 82830170 A 19820615

Abstract (en)

System for the cancellation of directional disturbances (jammers) by means of processing the signals received from the radiating elements of a phased array radar planar antenna. For the formation of the radiating beam in a certain direction all the radiating elements are not combined amongst themselves; some of these are combined separately in order to form auxiliary beams that allow the estimation of the disturbance which is present in the main beam and its removal from it. The system according to the invention does not therefore require the placement of auxiliary antennas around the main antenna and, much less, the use of multiple processing channels in the case when it is desired to control in amplitude and phase all the elementary radiators of the phased array. The signal coming from the main channel, with the effects of the disturbance removed can be further processed with the usual techniques that are used with radar receivers to detect the presence of targets and evaluate their kinematic parameters.

IPC 1-7

H01Q 3/26; **G01S 7/36**

IPC 8 full level

G01S 7/28 (2006.01); **G01S 7/36** (2006.01); **G01S 13/44** (2006.01); **H01Q 3/26** (2006.01)

CPC (source: EP)

G01S 7/2813 (2013.01); **G01S 7/36** (2013.01); **G01S 13/44** (2013.01); **H01Q 3/2635** (2013.01)

Citation (search report)

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- US 4313116 A 19820126 - POWELL NORMAN F, et al
- DE 2650547 B2 19800117
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- [A] IEEE TRANSACTIONS ON AEROSPACE AND ELECTRONIC SYSTEMS, vol. AES-16, no. 5, September 1980 M. EGGESTAD et al. "A combined programmed and adaptive null steering technique"

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Designated contracting state (EPC)

DE FR GB NL SE

DOCDB simple family (publication)

EP 0098339 A1 19840118

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